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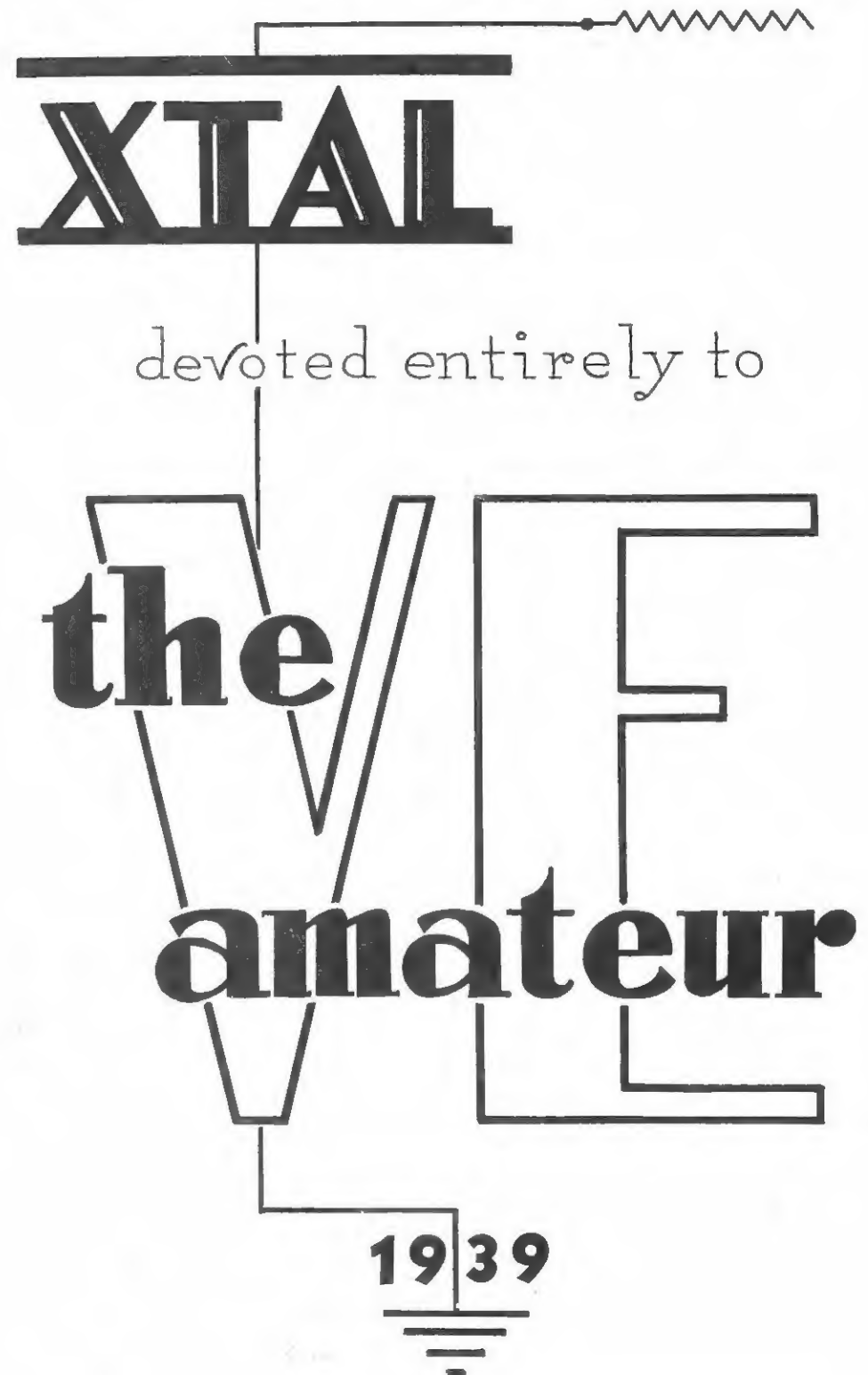
**CANADIAN GENERAL ELECTRIC CO. LIMITED**

Vol. 3

APRIL

10 Cents

No. 4



**XTAL**

devoted entirely to

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**amateur**

**1939**

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## XTAL

PUBLISHED MONTHLY BY  
THE VE OPERATORS' ASSOCIATION

AT  
106 JARVIS STREET  
TORONTO, ONTARIO, CANADA



## Association Interest

Here and there, an impression seems to exist that the VE Operators' Association is primarily interested in one particular phase of amateur radio. Nothing could be farther removed from the truth.

A group of some 3,500 adherents of any activity, drawn from all walks of life, necessarily will represent a variety of interests and opinions. That is true whether it be in the field of commerce or within the realm of theology. Amateur radio is not an exception.

Some hams are sold on the traffic idea, while others cannot arouse the slightest sympathy for that activity. Some phone men have no use for a key, and some brass-pounders would not take a second look at a mike. Some of our numbers find dx and the number of countries worked to be particularly attractive, and some get their greatest pleasure from rag-chewing — even with a local. Some of the boys like emergency preparedness, and some find experimenting is appealing. There is nothing wrong with all that. On the contrary, it is wholesome.

It naturally follows that our association must of necessity ensure that its interests and activities be as broad as ham radio itself. There is a complete realization of that fact, consequently no stone is left unturned to serve every branch of our hobby.

It may be, of course, that XTAL from time to time will carry more news regarding one sphere of activity than of another. When that occurs it will be due to the fact that the followers of that particular activity have been more prolific with their news reporting. Your magazine depends upon your co-operation in the reporting of news. If a dx man would like to see dx well represented in XTAL there is no better way of accomplishing that than by corre-

sponding with the association. If the material is received it will find its way into XTAL. The same thought applies to phone men, of course.

The association cannot afford to be partial, and has no intention of becoming so. If, periodically, contests are sponsored, they will be so arranged that they will equitably take into account the percentage interest or activity existing for each of the branches of our hobby.

So, friends, just settle down to a pursuit of your amateur radio bent, feeling securely confident that your association is vigilantly watching anything and everything which in any way affects our hobby. A member is a member, and the payment of his membership dues entitles him to the same service and protection that is afforded any other member. Whether he be the president, or the newest in our ranks, there is no difference in his amateur status. Beyond the statistical value of the information, we have no interest in the sphere which holds the greatest interest for him. We say that respectfully knowing that we shall be endeavouring to serve him faithfully, regardless.

We appreciate the fact that amateur radio is probably where it is to-day because of its variety of interests. The circumstances of the present demand a jealous guarding of each and every one of those interests if Ham radio is to continue in the enjoyment of its present status. That is the proper function of a national organization.

The VE Operators' Association is the hub of the wheel of Canadian amateur radio, and the spokes represent the varied interests of ham radio. Since not a spoke can turn without the hub, and as the hub cannot revolve without the spokes also revolving, it logically follows that all interests will be equitably served by the hub. O.K.?

## Canada - U.S.A. Contest—April 14-16

Announcement of the last big operating contest of the winter season has been received from the managing committee. The VE/W Contest is sponsored jointly this year by the Quebec Division of the A.R.R.L., the Montreal Amateur Radio Club and the Circle des Amateurs Canadien-Francais de la T.S.F.

Logs should be mailed not later than midnight, April 30, 1939, to VE2HG and VE2EU, French Radio Club, Lapalestre Nationale, 840 Cherrier St., Montreal.

### CONTEST RULES

**Operating Period.**—Starts 6 p.m., local time, Friday, April 14; ends 6 p.m., local time, Sunday, April 16.

**Frequency.**—Any or all amateur bands may be used.

**Object.**—Each VE will work as many W stations as possible in as many United States A.R.R.L. sections (see list page 6, QST) as possible. Each W will work as many VE stations in as many VE sections as possible.

**Scoring.**—The same log form as used for last year's contest will be used, as shown below. Message preambles will be exchanged. Each preamble sent will count one point and each one received will count one point. It is not necessary for preambles to be exchanged BOTH ways before a contact may count, but one must be sent or received before credit is claimed. All preambles must be handled under approved A.R.R.L. procedure. Mark each new section as it is worked. The "check" portion of the preamble will be the RST report of the station worked. Sample preamble: Nr 1 VE3GT ck 579 Toronto, Ont. 6.02p Apr. 14. W stations multiply number of points by the number of VE sections worked and multiply the product by nine, there being nine times as many U.S.A. sections. VE stations multiply the number of points by the number of U.S.A. A.R.R.L. sections worked.

**Power and Operator Handicap.**—Each station having less than 100 watts input to the final stage shall multiply the score by  $1\frac{1}{2}$ .

Where more than one operator normally operates a station the total score of the station shall be accepted, provided a certificate is attached to the log giving the names and call signs of the operators making the score.

**Operator's Certificate.**—The following certificate must accompany each log submitted:

"I hereby state that in this contest I have not operated my transmitter outside any of the frequency bands specified on my station license, and also that the score and points set forth in the above summary are correct and true."

**Prizes.**—A.R.R.L. Certificates of Merit will be awarded to the leader in each of the 71 A.R.R.L. sections in the U.S.A. (and possessions) and Canada.

Several prizes are offered for the leading Canadian scorers, as well as one for the leading U.S. competitor.

The VE Operators' Association will award a suitably inscribed cup to the highest scoring member in the contest.

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## Variable Crystal Holder

VE4EP had a variable control crystal mount at the Regina Hamfest, May 24 last, that was adjusted by means of a screw-driver. The holder was a BC2 with a gadget built on one side that caused the top plate to hinge. It seemed

Now insert holder in crystal socket and tune up the oscillator, using a frequency meter or superhet receiver to monitor. When oscillation is nice and free, keying without any lag or puff, slowly turn down the lid of holder until the frequency starts to rise, as indicated by changing pitch of tone. About half a turn is required for full range of tuning.

The oscillator here is a 6V6 in a tritet circuit, and the crystal a 160-meter plate that was originally 1717 kc. It has been ground to new 160-meter frequencies twice previously and now to 1841.5 kc. It doubles and tunes up to 3690 kc. with suffi-

cient power to drive a pair of 89's to 24 watts input, and at 18 watts they have worked Montreal from Saskatoon on the Trunk Line "I."

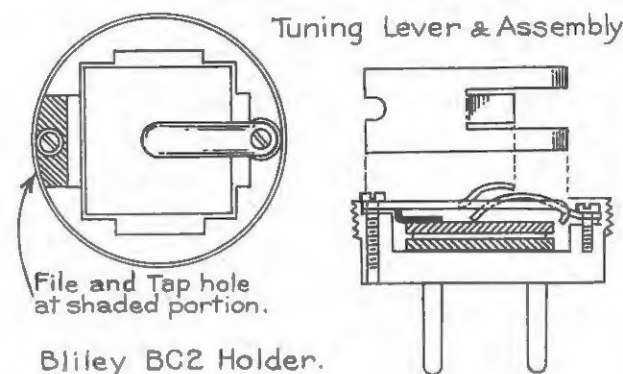
No claim is made that this gadget will equal any commercially manufactured product in reliability, flexibility, or even price, but it has proved to be a convenient means of breaking the trunk line for traffic and ragchews, and then dropping down 7 kc. to act as police without QRM-ing the traffic.

The comparatively small change in frequency obtained with this particular holder no doubt is due to the fact that the crystal is hand-ground and the surfaces are out of parallel by as much as  $3/10,000$  inch at spots on the face. Machine-lapped crystals of a reliable make would be much more active at wider separation of the holder "leaves."

The crystal stage, in any event, ought not to be required to drive a heavy load or work into an antenna, and remain stable.

—VE4KJ

We would be pleased if the various clubs and committees on picnics and gatherings planned for next summer would advise XTAL as soon as possible in order that good publicity may be given in these pages and so that no conflicting dates will result.



to be susceptible to improvement, as the cover had to be removed to tune the crystal. The tuning lever was very short and tricky in adjustment.

A little study evolved a scheme to tune the crystal by turning the lid of the holder, which screws on, and here is the dope.

On the side of the holder opposite to that where the pressure spring is fastened, file out a recess and drill and tap a hole for a small flat-headed screw.

Along one edge of the top plate solder a brass angle piece made from a heavy old-style condenser plate. This is the fulcrum. The lever is cut from the same material, using a hacksaw. The end opposite the fulcrum has to be slotted to straddle the pressure spring, and the outside prongs should be bent down and be free to move vertically, but prevent the tuning lever from being moved horizontally as the lid of the holder is rotated. The centre of the lid has a projection that bears on the highest point of the tuning lever.

When the crystal, top plate and tuning lever are assembled, the screw under the short end of the lever will have to be adjusted so that lever is just taut and snug without tipping the top plate. The fulcrum edge of the top plate remains in contact with the crystal at all times.



## VE2CP---McGill University, Montreal

The history of amateur radio at McGill dates back to the early 1920's. At this time broadcasting was coming into its own, and all the energies of the McGill Radio Association were devoted along these lines. A low power broadcast station was operated under the call 10AU, and was heard consistently in Westmount. When broadcasting ceased to be a novelty, the association went into the amateur game.

Around 1926 a 50-watt station was operated under the call NC2BJ. There is little information about 2BJ available, but it was apparently an outstanding station in its time. By 1929 the present call, VE2CP, had been assigned. The association flourished under the able direction of VE2CO, 2CU, the late 2AP and others. 2CP was on the air consistently, being very active in traffic work. A description of the original 2CP will be found in the December, 1931, QST.

During the early 1930's there was a slight lull in activities. By 1937, however, a 400-watt crystal-controlled transmitter was in operation on 40 metres, and it performed most satisfactorily. It was dismantled to make way for the present 20-metre phone transmitter which was put on the air in the spring of 1938. An additional 40-metre transmitter was installed in the fall of 1938.

"Two Candle Power" is located in a corner of one of the electrical laboratories of the Engineering Building. This makes it very convenient for dropping in for a QSO between classes. It has been built entirely by members of the association and has been financed almost entirely by dues and equipment collected from the members. Some equipment has been donated by the department of electrical engineering.

The 20-metre transmitter consists of a 6L6 crystal oscillator and a 6L6 doubler driving a 211D buffer. This stage is Heising modulated by a 212D operating Class A. This modulated amplifier drives the pair of 849's in the final, which is a linear Class B stage running at 500 watts input. Speech equipment is a D.B. microphone into a 57 into a 56. Several low-voltage power supplies are used for purposes of bias,

speech voltage, exciter voltage, etc. Two high-voltage supplies, one at 1,000 volts, the other at 1,700 volts, provide power for the high power stages. The 1,000-volt supply is used for the 211D and 212D, the 1,700-volt supply being in series with it to give the 2,700 volts used on the final. The antenna system on 20 consists of two horizontal half-waves in phase, with a quarter-wave phasing section fed by a 600-ohm line. The main lobes of this antenna are northeast and southwest. It is mounted on 20-foot poles on top of the Engineering Building, and is over 100 feet above ground. Most of the credit for any success which may have been had on 20 metres must be given to this radiator.

The 40-metre transmitter has a 59 crystal oscillator, a pair of 6L6's and a pair of 211E's in the final at 300 watts input. The 1700-volt supply is not used on this transmitter. The antenna is the same 40m Zepp which has been in use for almost 10 years.

The receiving equipment is a National FB7 which has been revamped by the addition of a noise silencer. The location, however, puts any receiver at a disadvantage, since there is a large amount of "hash" from nearby machinery with which no receiver can be expected to cope. Receiving conditions at 2CP are definitely poor.

The transmitters are controlled entirely by relays which are operated from the control panel at the operating position. Selection of the desired transmitter is made by one switch which operates the band-change relay to light the filaments and put the necessary voltages on the transmitter chosen. The operating relay turns on the appropriate power supplies, and is controlled by a switch at the operating position. An antenna relay automatically switches the antenna from receiver to transmitter when on the air. These all make the station very convenient to operate.

Since going on 20 last year, about 1,200 QSO's have been held. Countries worked number about 30. An attempt has been made to organize a network of Canadian college stations, and some progress along this line has been made.

## Club Activities

The West Side Radio Club of Toronto, after a winter of intense building activity, have sprouted forth on 160 phone, and are to be heard each Monday and Thursday evening. They are also quite active on 40 with code, and are open for skeds on either of these evenings. 3JJ, the club station, now runs about 15 watts input, and, considering the low power, is getting out remarkably well. The boys are all looking forward to spring, and the string of field days and portable activities which are being planned. The club intends to greet the main events with a 75-watt portable operating on 10 and 75. 3JJ will enter the approaching VE/W tussle with relays of operators keeping the rig on the air for the full operating quota. The club's official trophy, "The Foote," awarded for outstanding operating ability, has been captured by AGB. The chief op at AGB selected a novel method of announcing his engagement recently, by springing the startling news on an unsuspecting audience during a 160 roundtable. AIB, the W.S.R.C.'s engineer, investigated the possibilities of low power during the recent

Schedules are at present held with McMaster University (VE3ALK), Bishop's University (VE2KM) and the University of New Brunswick (VE9AS).

At the present time, 2CP is operated by a gang of about 20 hams, including VE1AS, 1FN, 2BK, 2CS, 2FI, 2GQ, 2HF, 2IA, 2IN, 2IW, 2JZ, 2LU, 2MV, 2PA, 2PW, 3ADL, 4IA, 4AME and TI2CP. Other hams who have been active at 2CP recently include VE2KX, 3PH, 4YA, 3BL, 3PP, 2EQ, 2CI, 2EH, 2KJ, etc. Code practice classes are held at the beginning of each year for members who may desire to obtain their licences.

It is the hope of the present executive that in the near future some activity may be shown on 10 and 75 metres. Changes in the antenna and receiving equipment are contemplated.

Out-of-town hams are always welcome at 2CP. Several VE3's 4's and 5's, to say nothing of VO2N, have dropped in this year, but there is still plenty of room on the "register" for other calls.

dx contest, piling up 30 countries with an average input of 35 to 40 watts, while LR, the president, is working on plans for a complete new rig with bandswitching from 10 to 160. All in all, the West Side Radio Club seems to be rolling merrily along, and appears to be pointed for a place of prominence among the Toronto Clubs.

The Royal City Amateur Radio Association, New Westminster, B.C., is getting under way for a new year and figuring new plans. A club house of their own is the talk around the club now, and ways and means of raising the necessary cash are well on the way. Inter-club socials with the Collingwood Club are again going to be started and the gang are looking forward to the Collingwood Club's invitation to attend a social on March 24. A number of the R.C.A.R.A. members are interested in photography, and do their own developing and printing, and would like to swap ideas and pictures with any other clubs in Canada. VE5IA enclosed two fine snaps of the shacks of 5HA and 5IA, and if these are examples of their own photographic work, other members of clubs will have to go some to do better jobs.

At a recent meeting of the Victoria Short Wave Club, VE5HP demonstrated his home-made cathode ray oscilloscope. It is a real commercial-looking bit of equipment and the talk was most interesting. The V.S.W.C. has added twenty new members since the November annual meeting, and, for the most part, due to beginners' classes held once a week by VE5DV, ably assisted by VE5AGN. At present the class numbers 25 and no more can be accommodated due to the limited facilities. Certainly this assistance to the newcomers is a feature that other older Canadian clubs might well consider. It not only builds your own clubs, but builds better operators as VE's of the future.

### TO REMIND YOU

That the June field day will soon be here.

That the rules governing the award of the Canadian Field Day Trophy appeared in January XTAL.

## Ultra-High Frequency News

The biggest news on the ultra-high in these parts since the last XTAL went to press was the hamfest held in Buffalo, N.Y., on Feb. 25, by the Greater Buffalo Five Meter Club. The dinner and meeting took place at the Central Y.M.C.A., and 64 hams were in attendance. The Canadians were well represented, and we noticed VE3HR, 3DC, 3AI, 3ATQ, 3XX, 3OJ, 3AVO, 3ADO. Erie, Niagara Falls, Jamestown and Syracuse were also represented. The program was arranged and presided over by Ernie Roy, W8RV, (who we insisted on calling W8RJ last month). Ernie is as fine a chairman as he is an ultra-high experimenter. Short talks were given by VE3ADO and W8NOJ. The latter, over in Erie, Pa., has been working 224 mc (1 1/4 meters), and he told the gang what it was like. Parallel-rod oscillators, with tuned heater circuits, are the thing on that frequency. The acorn series does not stand up well under portable operation, and the new Hytron 615 is found more suitable for low power. Distances of 30 to 50 miles have been reached with moderate power on this band. An Erie-Buffalo QSO on 1 1/4 is the next goal of W8NOJ.

Random notes of the hamfest . . . . The 5-meter superhets built by W8NOR and W8RV use two stages R.F. with 1852's, then 6K8 or 6J8 as combined h.f.o. and mixer . . . . W8NOJ's 1 1/4 meter oscillator, parallel rod with two 615's P.P., sure looked simple on top, but underneath the chassis was another tuned circuit for the heaters. The 5-meter crystal controlled portable by W8NOJ was a masterpiece of neatness; it used a pair of RK34's, and was said to be equally fb on 10 meters . . . . The facsimile receiver from W8XH can pick Jane Arden or Moon Mullins right out of the 7 1/2-meter band . . . . Door prizes included an 1851, and the hush that fell when this was drawn for was positively ponderous. We came close on that one — the lad behind us got it! . . . Many were the curious glances that W8GU received; the boys were interested to see where their crystals came from.

Time did not permit visits to many of the Buffalo stations. We did see the

operating position at W8RV, which includes a dandy mixing unit. At W8POL we saw equipment that seems fairly typical of the more advanced 5-meter stations in Buffalo. The transmitter is crystal controlled, with a T55 in the final, running about 100 watts. The receiver is a 5-meter superhet, with acorn tubes in the high-frequency section. The antenna is a vertical stacked 8JK. We also managed to sneak in a visit to W8XH, the ultra-high station of WBEN. After going through one door marked "No admittance," and another that said "KEEP OUT," we found the equipment in a sort of penthouse on the roof of the Hotel Statler. The transmitter proved to be fairly conventional, but the facsimile apparatus was very interesting. By means of this, special editions of the Buffalo Evening News are being transmitted to outlying districts of the Buffalo area. Here, also, was W8RV's 224 mc transmitter, a pair of 800's in a parallel-rod oscillator. This is the rig with which Ernie hopes to work Erie, Pa.

Returning to Canada, we note the following new calls on the 5-meter band in Toronto: VE3AAK and 3PT.

Good QSO's between the east and west ends of the city are now being accomplished, and if you don't think that's dx, you don't know the way Toronto is laid out. A new W8 signal is coming into Toronto these days, W8EWF in Niagara Falls, who is R8 here at times. While in Buffalo we learned that the 5-meter band had opened up briefly on Feb. 24. Two-way communication was established with Akron, Ohio, for a time.

The only activity report from outside Ontario is from VE5GA, who keeps the ball rolling out on the coast.

There are two new tubes available for ultra-high frequency work. The Hytron HY615 is an inexpensive triode suitable as an ultra-short and micro-wave oscillator. It is a low, squat tube, with plate and grid leads out the top, an external shield coming about half-way up the glass, and an octal ceramic base. Some of the characteristics are: heater voltage 6.3, current .15 amp.; inter-electrode capacities, Cgp = 1.8 mmf., Cgk = 1.4 mmf., Cpk = 0.6 mmf. Ratings at 300

## Members' Activity Reports

VE4QA uses a 6L6 e.c. into a pair of 46's and is on the high end of 7 mc, still at school, but finding some time to look for other VE's. 3PZ, Guelph, had his first antenna up in 1912, and holds proficiency certificate No. 227. We understand 3AHZ, 113 Cottingham St., Toronto, would like to have any of the gang drop in on him. He has been unable to leave his bed for a long time. 5EC put up an 8JK rotary two days after seeing "Poor Man's Rotary" in March QST and promptly snagged two new countries. Says he can cut S9 sigs to zero by merely rotating. 5EZ, Victoria Short Wave Club station, was put on the air immediately following a meeting, and F. D'Altroy, just graduated from beginners' class, promptly worked a VK3, much to everyone's surprise. (See Club Activities re this class). 5EZ uses a pair oversize 10's in final. 5HR, aided and abetted by 5EC and 5DY, hope to get founder of the above club back on the air. He was once NC5CO, got married in '30 and has been off since '32. Boy, the YL's sure QRM the boys every now and then! 4WQ, from North Portal, Sask., is staying in Victoria, B.C., and expects to be signing a VE5 call soon. 5IC is building a phone rig for 5TZ, who is blind. 5HP's new home-made oscilloscope is the subject of much talk in Victoria these days. 5GA has led the way in u.h.f. work around Victoria. He is old 9BP, who was the reliable outlet for the MacMillan Arctic Expedition back in 1923-24, at Prince Rupert. Remember old WNP? How many of the members worked him in those days? 5IL took a little holiday from commercial operating and was seen wandering about Victoria. 3IA has

mc are: Plate voltage 250, plate current 20 ma., grid current 4 ma., R.F. output about 2.5 watts. Verging on the high-power class is the RCA-832, which is an all-glass, casserole-shaped tube, really a pair of beam power tubes in the one envelope. Characteristics: heater voltage 6.3 or 12.6, plate voltage 400, plate current 90 ma.; said to be efficient to 300 mc.

moved to Burlington, Box 228. 4OB got some nice ones during the B.E.R.U. tests. 4IX, Byemoor, Alta., writes: "I would like to make contacts with eastern VE's. My outfit is very low powered, using 19 p.p.c.o. with 180 volts of "B" batteries to a Zepp on 7,176 kc. I will call VE3 on this frequency from 9 a.m. to 9 p.m. M.S.T. on Wednesdays and Thursdays. I also listen for calls on 3.5 mc, 3-3.15 p.m. M.S.T., Wednesdays, Thursdays and Sundays. Will be glad to send a picture of myself and rig to any VE3 contacted, as well as QSL. Would also like to get VE1 and 2, if my power can get that far." 4IX: Many VE's are heard within 15 kc. either side of your frequency. Go get 'em! 4AMQ is still looking for VE3's. Says the W8's and W9's don't feel eager to QSP Toronto. 5ADB worked 3XD, 3ARF, 3ATQ, 3APT, and 3APZ lately on 160 phone. 1KY is putting 50 watts into an 809 on 3.5 and 7 mc. 10W's 6L6 xtal osc. worked ON4. 1ME is operating 1LZ's rig on 40. 1AA is selling out and moving to W6land. 1KG operates the Halifax club's 1MK. 1JE, JL, CD and AB keep Cape Breton on the air. 10A makes a dent in 7 mc from Richibucto 1FT moved from Sable Island to St. Paul's Island and is on 75 phone. 2PM puts a swell sig into Halifax with his 6L6-T20-T55 on 3.5. 1KS and 1MF are on 160 phone. 1OK got a YM4 card before he had a rig on the air (and the rest of us can't do it the hard way!) 1DQ is looking and lurking for J2MI. 1IQ is heard on 20 phone. 1OQ is a new ham in Bedford, N.S. 1EV works 75 phone, and 1GP uses 12 watts the same way. 1OB works his first dx, a G on 40. 1LD is on 40, and NO and NP on 80 and 40. 5HR wants to know if any P.E.I. stations are using code on 10 or 20, and what is VO1D's frequency on 10? XTAL had hoped that by now a lot of the boys would be reporting news of doings in their localities. Even after some promises, no reports follow. This column seems to have some appeal, but its interest and scope is necessarily limited for lack of info from the gang. Won't you give us a hand, and send the news to reach us by the 15th of each month?

## VE2AP, VE2NI, VE5ABP

It is with the very deepest regret that we record on this page the passing of three fellow VE's: John C. Stadler, VE2AP; Capt. Herve St. Martin, VE2NI; and A. T. Anderson, VE5ABP.

On Sunday, March 5th, VE2AP and VE2NI were in contact by radio with VE2AB, and advised 2AB that they would be flying out from St. Felicien, Quebec, close to Quebec's north-eastern



JOHN C. STADLER

mining district of Chibougamau, to Lac-A-La-Croix, a 100-mile flight, providing the weather permitted. When nothing was heard from them at either point by Tuesday two planes took off in search of them. On Wednesday Pilot Pat Twist, piloting one of the search planes, located the missing Waco, crashed and partly submerged in a small lake 80 miles north of St. Felicien. Twist landed to find VE2AP, VE2NI, and Oscar Therrien, mechanic, dead in the wreckage, apparently having been instantly killed when the plane struck a tree and nosed into the lake.

We are sorry we are unable to give you any details at this time regarding the passing of VE5ABP, in the Yukon Territory.

John, as VE2AP was known to us, was one of Canada's best known and best liked amateurs. He was 33 years of age, and an amateur since 1928, when he first

became interested as a member of the McGill Radio Club while attending that university, from where he graduated in electrical engineering. Afterwards he was secretary of the Quebec Electrical Commission, and in December, 1936, joined the Canadian Broadcasting Corporation in Montreal as executive assistant to the Assistant General Manager. All of us are aware of his attending the I.A.R.U. Congress at Budapest in May, 1937, along with Jim Lamb, of A.R.R.L., and we would like to quote from Sept., 1937, Q.S.T.: "The ability of your Canadian representative, J. C. Stadler, in his use of the French language, was of great value. It not only permitted a far wider cultivation of friendship and informal discussion with European delegates and conference officials, who all use French and rarely understand English thoroughly, but it also made his services valuable in an official capacity. Nominated as the reporter of the important main committee on emissions by the U.S. delegation's chief, Dr. Dellinger, he served in this capacity, keeping the minutes of all of the meetings of this important committee. Further goodwill for the amateur cause was cultivated by his voluntary service as interpreter for the two meetings of the International Broadcasting Union which were held outside the conference."

John was SCM of Quebec for two years, past president of the Montreal Amateur Radio Club, and a really "active" amateur. His high ideals regarding amateur radio and his kindness towards all hams were well known, as our old friend VE3NM, ex-VE2BB, can well tell you. John is survived by his parents and two sisters.

Herve, as VE2NI was known to most of us, was a northern aviator of considerable fame. He served for three years during the great war with the R.A.F. He was one of the pioneers in commercial air transport, flying into the Canadian mining and hunting districts which lie beyond the reach of railway lines, and at the time of his death was the owner of the J. H. St. Martin Transportation Company. Among other distinctions Herve held was that of having carried

## On Contests

Editor, XTAL:

Now that the contest is over—at least the C.W. portion is (at this writing the fone portion is just starting) — a few comments might be in order.

I was certainly disgusted with the operating procedure on the part of some of our W friends, and also some of our own VE stations.

Apparently few read thoroughly the rules and operating suggestions laid down by the A.R.R.L. In February Q.S.T., pages 20 and 21, it distinctly states, under Operating Hints, that the use of cq on the part of W and VE stations is out. I don't know how many numbers I lost due to unnecessary QRM. Several times I pulled switches and left the shack in disgust. I asked CR7AY four times for a repeat due to a W8 right on 7AY calling CQ. Of all the W and VE stations I heard, not one dx station answered their CQ. Certainly the going was tough and competition keen. I have always experienced this in all dx contests I have been in, but never the QRM problem as in this last contest. Maybe I strayed from the straight and narrow path by sneaking out of the band several times to snag a rare one, but never once did I call CQ. After a dx contact I would sometimes call QRZ several times to sign. Several new countries were worked here, which is more important to me than a large score. But there is one thing that stands out in my mind probably more since this last contest closed: Our own B.E.R.U. yearly dx contest is really a classic. We can WAC right within our own British Empire, and no high power W stations to compete with. Am now waiting for the next B.E.R.U., and am surely going to town.

G. A. THREADER, VE3KP

the first air-mail between Montreal and Toronto. He was 44 years old and is survived by his wife.

To have two such distinguished VE's leave us in the prime of their lives, and so suddenly, is a bitter pill to swallow, and all we can say is that we know how their relatives and closer friends feel, and to them we wish to express our very deepest sympathy.

## "Wave"

We had a real thrill the other day when we opened a letter containing QSL cards for proof of contact by the first VE to "WAVE" since the rules were published. However, we were very disappointed to note that most of the QSL's were dated back to other years. You will note from the rules that the contacts must be confirmed as taking place after Dec. 31, 1938. In order to save any of the gang unnecessary inconvenience, please remember that the contacts don't count for the "WAVE" certificate unless they are made in 1939, or thereafter.

In order that there may be no misunderstanding of the "WAVE" rules we set them forth once more:—

## "WAVE" Certificate Rules

1. The applicant shall submit proof of contact with two different stations in each province, contacts being on different bands (total of 18 confirmations). Yukon Territory and North-West Territories shall be considered as part of British Columbia.
2. All contacts for which the award is claimed shall be made on or after January 1st, 1939.
3. Applicants residing in territory designated by the prefix VE or W shall make all contacts from within one province or state.
4. The sum of twenty-five cents shall be forwarded with application to defray costs and return postage on cards. The fee shall be waived if the applicant is a member of the VE Operators' Association.

## HELP WANTED

Rev. Lionel Bourassa, VE3ASD, is way up at Lavigne, near Verner, Ont. His transmitter is 6L6-809 with 25 watts input, modulated by a pair of 49's. Frequencies used are 2010 and 3685 kc. The power supply is a Johnson 300-watt generator - alternator, which creates enough interference to kill reception on both 160 and 80. VE3ASD would appreciate greatly some expert advice on this QRM problem, and wishes also to get in touch with his nearest ham neighbor, so they may arrange tests. How about lending a hand to a ham in the bush?



## DX News

5HR is glad the dx contest is over. Says maybe now we can work some dx. He had 54 contacts on 10 and 20, but snagged only one new country. 5EC got a couple of new ones, KF6PMC, Howland Island, and KF6DHW, on Canton Island, both about 14380. Heard at 5HR lately ZC6RL, 14100; VQ4KTF, 14080; FB8AA, 14020; LY1S, 14020; HA2L, 14110; VK6SA, 28075; J2JJ, 28075; VK6MW, 28220 (phone); XU8AM, 28175; J2KN, 28350; J3FZ, 28400; YS2LR, 28200 (frequencies approximate).

3KE with his 22 watts input worked over 100 stations in the CW DX Contest, all continents but Asia, and bagged 13 countries on 7 mc. 3BK was knocking off the Europeans and South Africans in the DX phone fray.

One frequency, 7120 kc, was used as VE3VD for eight hours of operating in the dx contest. Using only a 150 watts input, the following stations were contacted: G8IC, G6MC, G6NF, ZL2BV, ZL1CI, ZL1HA, VK2RA, VK2ALU, K6LBH, FA3RY, XE1CM and CT3AN. All were within the frequencies 7060 and 7190. Beyond these to 7000 kc and to 7300kc no answers were received.

Heard, but not contacted, were HR4, NY1, SM7, KF6, HP1, LO2, EI4, NY2, PY2, GW3, LU9, NY1, OZ2.

The one patience test, not mentioning QRN, during the contest, was hearing stations such as EI4J, OZ2M and others give short calls, whereupon four or five stations would pounce upon their frequency and shout an answer. The E.C. oscillator was responsible for much of the bouncing business and it certainly got results.

Conditions during the time of operating were fairly good, though on March 7 and 8 QRN was very disturbing even to the point of preventing further contacts.

Surprisingly few VE1's were heard, though a few VE4's and VE5's were listed.

Have you heard the South Africans rolling in around midnight, E.S.T., on 7 mc., when the skip is on?

4EO got hooked up in a four-way on phone to find all the four were VE Ops.

## New Amateur Calls

## Ontario—VE3

FL—116 Walmer Road, Toronto.  
JB—101 Woodlawn Ave. W., Toronto.  
JJ—West Side Radio Club, 21A Augusta Ave., Toronto.  
LI—89 Charles St. W., Toronto.  
LN—115 Alton Ave., Toronto.  
NJ—39 Wineva Ave., Toronto.  
OZ—694 Windermere Ave., Toronto.  
PK—52 Tranby St., Toronto.  
PT—1243 St. Clair Ave. W., Toronto.  
SK—R.C.C.S. Corps "A" Signals, Spadina Ave., Toronto.  
SL—110 Farnham Ave., Toronto.  
SV—1 Hanson Ave., Toronto.  
TI—582 Spadina Ave., Toronto.  
WJ—48 Arlington Ave., Toronto.  
AAK—1068 St. Clarens Ave., Toronto.  
AHE—131 De Forest Rd., Swansea.  
ANA—336 Monarch Park Ave., Toronto.  
AXG—93 St. George St., Toronto.  
AYJ—356 Berkeley St., Toronto.  
AYM—R.C.N.V.R., 165 Lake Shore Road, Toronto.  
AYO—61 Grosvenor St., Toronto.  
AYP—1311 Pape Ave., Toronto.  
AYT—262 Jarvis St., Toronto.  
AZA—38 Barton St., Toronto.  
AZC—102 Byng Ave., Toronto.  
AZF—76 Forman Ave., Toronto.

XTAL would be pleased if those reporting DX in April would send all reports to 106 Jarvis St., Toronto.

Our genial DX editor, 3ADV, was married March 20th and is honeymooning in Florida. His report of DX for this issue went astray, hence this abbreviated report.

Ham Headquarters  
in Buffalo

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## QSL'S for VE4'S

The QSL Manager has cards for the stations listed below. Send a stamped, self-addressed envelope to George Behrends, VE4RO, 186 Oakdean Blvd., St. James, Winnipeg, Man.

AAB, AAH, AAJ, AAM, AAO, AAS, AAT, AAX, AB, ABB, ABC, ABE, ABT, ACA, ACH, ACL, ACN, ACU, ACZ, AD, ADG, ADS, ADW, ADZ, AE, AEC, AEI, AEO, AEW, AF, AFB, AFD, AFI, AFZ.

AG, AGG, AGT, AGZ, AHH, AI, AIJ, AIQ, AJ, AJB, AJE, AJI, AJW, AK, AKB, AL, ALE, ALM, ALO, ALU, AMC, ANB, ANF, ANI, ANP, ANU, AO, AON, APA, AQ, AU, AW.

BA, BB, BD, BE, BF, BJ, BR, BS, BY, CC, CD, CF, CI, CO, CS, CU, DA, DE, DF, DG, DJ, DM, DX, EC, EG, EH, EL, EP, EQ, ER, FJ, FK, FN, FO, FV.

GA, GB, GF, GJ, GN, GO, GP, GS, GT, GU, GV, GZ, HC, HF, HG, HI, HL, HM, HP, HS, HT, IG, IT, IW, IZ, JG, JH, JJ, JN, JO, JQ, JR, JT, JV, JX, JY, JZ.

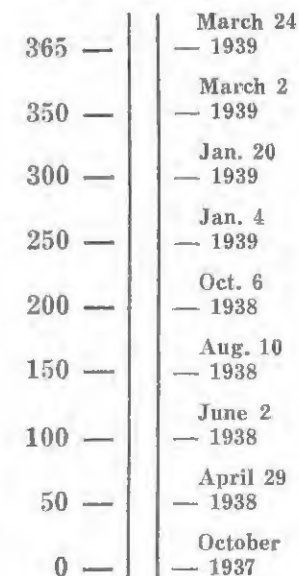
KF, KG, KK, KN, KO, KQ, KS, KX, LD, LM, LU, LV, MB, MJ, MM, MN, NE, NF, NM, NR, NZ, OD, OF, OH, OO, OQ, PE, PF, PL, PM, PN, PW, PZ.

QB, QE, QF, QG, QH, QI, QO, QU, RD, RF, RG, RK, RM, RQ, RS, RY, SA, SC, SG, SH, SK, SU, SV, TA, TF, TG, TJ, TM, TU, TW, UF, UG, UJ, UN, UQ, UT.

VC, VI, VJ, VO, VR, WA, WB, WM, WU, WW, XA, XB, XG, XH, XK, XL, XU, XW, XX, XY, YC, YK, YM, YQ, YT, YW, YX, ZG, ZQ, ZR, ZT, ZY.

## The Old School Tie

Here is an interesting incident demonstrating the international ham spirit that really exists in remote parts of the world, as related by VE3LK (Henry Newby) in a letter to one of our members. VE3LK went over to England and received an appointment with the British merchant marine as a radio operator, and eventually found himself in Cairo, Egypt, on shore leave with a few hours to spare. He decided to attend a movie, and after the show came out was walking up the street when he received a thump on the shoulder with a magazine and a voice said, "Hello, ham!" Turning around, he saw a fellow with QST in his hand, who then introduced himself as an SU ham. He took Henry home to show him his rig, and a good time was had by all. The Egyptian had noticed the call pin on VE3LK's coat lapel. If that isn't the true friendly spirit generated by ham radio—well, we don't know what is.

VE OPERATORS'  
MEMBERSHIP GRAPH

## KBX Crystals

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## BIOGRAPHY

Miss Ethel Pick became VE2HI in June, 1933, and the past five and a half years have been most eventful for her. Westmount, Quebec, is the QTH of VE2HI, and there, also, Miss Pick carries on her profession as school teacher.

During the summer season, she enjoys outdoor life at her summer home, located at Lac Pilon, but takes time to carry on her hobby with a portable, composed of a pair of 6L6's and an RK20. The receiver used is a battery model National SW3. There being no power lines through that district, power for the transmitter is obtained from a motor generator. The portable may be heard on 3747 kc's and 3850 kc's.

At Westmount, VE2HI operates mostly on 7040 kc's. Her station has been rebuilt five times since 1933. The present transmitter, built with the co-operation of her brother, VE4ARB, is composed of an 802 oscillator, 802 buffer and a pair of 809 p.p., final amplifier delivering power of 130 watts.

Miss Pick is a member of the VE Operators' Association, the Montreal Amateur Radio Club and the A.R.R.L., and takes keen interest in all radio amateur activities.

VE2HI's ability as an operator is well known, she derives more enjoyment from a good "rag chew" than from chasing dx, though dx worked by this station is worthy of mention.

## VE Operators' Convention

## TORONTO

October 6-7

Twice as Good as Last Year  
Ask the Ham Who Was There  
Watch for Program Details  
DON'T MISS THIS ONE

## INTERNATIONAL 160 PHONE NET

Last December, VE5AIA of Allenby, B.C., and VE5ADB of Victoria, B.C., started plans for an international 160-metre phone net. Operation started on Jan. 2 and much traffic was handled on 1825 kc. QRM and other difficulties caused a decrease of interest, but a change of frequency and net sked time has revived it better than ever. Net now meets daily at 8.30 p.m., P.S.T., on 1870 kc., and will welcome to its roster any station which can get on that frequency. They would appreciate greatly co-operation of non-members on that frequency by a temporary QSY, if possible, during the net meeting. The gang is encouraging the maintenance of portable independently powered rigs for emergency use.

W7GWL, Bremerton, Wash., is chief net control station of the "International Net," and the members are listed below, with the first named for each state or province acting as state net control:

Washington.—W7GWL, FCZ, ECC, SA, GSS, GSN, GNA, HIF, HCO, CJI, FIH, BJP, HHC, EKT, GXI, CR, HCS, BWG, HBC, GPI, AZI, BHP, GUJ, DCV.

Oregon.—W7GHM, HGJ (assistant), FJV, AEN, FLX.

Montana.—W7BWH.

Idaho.—W7GPM, GWI.

California.—W6OTL, NRO, OUC.

Alberta.—VE4ALO.

B.C.—VE5AIA, AAC, ADB.

## SWAPS

Will swap my 1754 Kc. xtal for one 1775 to 1800 kc.

3RF.

## NEW MEMBERS

To your list of members dated Feb. 14 please add the following new members: 1CR, 1CW, 1NM, 2FG, 2JI, 2LI, 2ND, 3ASD, 3BD, 3DL, 3NM, 3SN, 4ABI, 4AFV, 4AJA, 4AKH, 4AIE, 4EP, 4OM, 4QA, 4RE, 4ARV, 5AEB, 5HE, 5JB, 5SS, and Messrs. N. J. Dinnen, G. Burke, W. F. and H. R. Wright, L. H. Johnson. Please also delete 4AJQ and add 3AJQ. The above, coupled with the additions mentioned on page 3, March XTAL, will bring your list correct to March 22nd.

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## APPLICATION FORM

## VE Operators' Association

I hereby make application for membership in the VE Operator's Association. One dollar is enclosed for one year's fees and subscription for XTAL—or—Three dollars is enclosed for one year's fees and subscriptions for XTAL and QST.

Name..... Call.....

Address .....

Proficiency Certificate No. .... Station License No.....

Member of following radio organizations .....